

REMARKS

This amendment responds to the Office action dated March 17, 2008.

Claims 1-19 are pending in the application.

Claims 1, 10, 14, 18 and 19 are independent claims. Claims 2-9 depend from claim 1 and therefore comprise all the limitations therein. Claims 11-13 depend from claim 10 and therefore comprise all the limitations therein. Claims 15-17 depend from claim 14 and therefore comprise all the limitations therein.

The examiner has rejected claims 1, 2, 4-10 and 12-19 under 35 U.S.C. §103(a) as being unpatentable over Barry et al., U.S. Patent No. 6,825,943, hereinafter "Barry," in view of Official Notice.

Independent claim 1 has been amended and comprises the element of:

using a print processor customized to use said manipulated PISF index
file, generating printer-ready data, for a modified document created via
said page format manipulation, from portions of said spool data file
identified by said manipulated PISF index file.

which is an element not disclosed in the cited combination of art.

Barry discloses a method for splitting a print job into several portions for parallel RIP processing. Barry further discloses the use of a "control file" that contains parameters for managing the several portions for parallel RIP processes. The control file

is updated to keep track of the various portions of the print job while they are being apportioned. However, this control file is not analogous to the page-independent index file of this claim.

Claim 1 comprises the element of “a link that identifies a portion of the spool data file required to print an independently-formatted page-specific unit of said document.” The examiner cites Barry (col. 4, lines 26-48) as teaching this element. However, Barry, at this location, recites only a control file comprising control parameters for accomplishing the parallel conversion processing of a print job. Barry makes no mention of a page-specific unit identified in the control file. Applicant has reinforced this element of the claimed invention multiple times. In the preamble, where the “page-independent spool file index” term is described. In the second element of claim 1, where the Page-Independent Spool File (PISF) is described. Later in the second element of claim 1, where “a link that identifies a portion of the spool data file required to print an independently-formatted page of said document” is described. These parts of the claim clearly identify the nature of the index file and data therein that identifies independent data that describes a specific page of the document. The control file of Barry simply identifies the total number of pages in the document (col. 4, lines 15-20) and does not contain a link to data required to independently print a page of the document.

Claim 1, as amended, also comprises the element of “generating printer-ready data for a modified document created via said page format manipulation.” The process of claim 1 results in modified printer output based on page format manipulation options, such as page order modification, number of copies modification, page scaling

modification and page placement modification as delineated in claim 1. Barry does not teach document output modification. Barry changes the way a print job is processed or ripped and may change the output device or use multiple output devices, but the document printed through the Barry process is always the same as the document that enters the process. In the Barry process, no perceptible modification of the resulting output is effected other than the output location and time of delivery. Claim 1 results in a modified document being printed, not the original document, based on page format manipulation of the original document.

Independent claim 1, as amended, is therefore allowable in its present form. Claims 2 and 4-9 depend from claim 1 and comprise the limitations therein. Therefore, the rejection of claims 1, 2 and 4-9 should be withdrawn for the reasons stated above in relation to claim 1.

Claim 4 was amended with the element: “wherein global, persistent commands in said spool data file are allocated to page-specific units in said PISF index,” which is not taught in Barry. In addition to the reasons stated above in relation to claim 1, claim 4 is allowable for this reason as well.

Claim 5 was amended with the element: “wherein said using a print processor comprises Ordered Index File Processing wherein said PISF index file is modified to effect document output changes in the order: 1) page order, 2) page scale and placement, and 3) sheet collation,” which is not taught in Barry. Barry does not teach an order of

operations as Barry does not teach a structured index file. In addition to the reasons stated above in relation to claim 1, claim 5 is allowable for this reason as well.

Claim 6 was amended with the element: “wherein said PISF index file comprises information for locating a Print Job Command record, which comprises a location, size and data type of a Collate and Number of Copies command index,” which is not taught in Barry. In addition to the reasons stated above in relation to claim 1, claim 6 is allowable for this reason as well.

Claim 7 was amended with the element: “wherein said PISF index file comprises a Face record for each side of a page in said document,” which is not taught in Barry. In addition to the reasons stated above in relation to claim 1, claim 7 is allowable for this reason as well.

Independent claim 10 comprises the element of:

wherein said PISF index file comprises a link to a spool data file, wherein said link identifies a portion of said spool data file required to print a first independently-formatted page corresponding to a page of said document, wherein said first independently-formatted page is based on document-wide, persistent, page formatting data in said spool data file, thereby producing a manipulated PISF index file;

Barry makes no mention of an “independently-formatted page based on document-wide, persistent, page formatting data in said spool data file. This very

specific element is not taught in Barry. The examiner rejected this claim based on an argument applied to claim 1. However, this element is not part of claim 1 and should be considered independently. The rejection of independent claim 10 and claims 12 and 13, which depend from claim 10, should therefore be withdrawn.

Claim 12 further comprises the element: “wherein said PISF index file comprises indices to distinct spool data chunks corresponding to the sequential order: Print Job Header, the front and back of each sheet of the document and the Print Job Footer.” This element is not taught in Barry. Accordingly, claim 12 is allowable for this reason as well as the reasons stated above for claim 10.

Independent claim 14 has been amended and comprises the element of “, wherein said independent formatting is derived from document-wide, persistent, page formatting data in said spool data file; and-using a print processor customized to use said PISF index file, accessing data indexed in said PISF index file to print said page. This element is not taught in Barry. The rejection of independent claim 14 and claims 15-17, which depend from claim 14, should therefore be withdrawn.

Claim 16 has been amended to comprise the element: “wherein said PISF index file comprises indices to distinct spool data chunks corresponding to the sequential order: Print Job Header, the front and back of each sheet of the document and the Print Job Footer.” This element is not taught in Barry. Claim 16 should be allowed for this reason as well as the reasons stated above in relation to claim 14.

Independent claim 18 has been amended and comprises the element of “an indexer for converting document-wide, persistent, page formatting data in said spool data file into a page-independent spool file (PISF) index file comprising a link to said spool data file, wherein said link identifies a first portion of said spool data file required to print an independently-formatted, page; and a customized print processor capable of interfacing with said PISF index file to generate printer-ready data corresponding to said page from portions of said spool data file identified in said PISF index file.” This element is not disclosed, particularly the conversion of document-wide formatting data into a page independent spool file index file, in the cited combination of art. Independent claim 18, as amended, is therefore allowable, and the rejection of this claim should be withdrawn.

Independent claim 19 has been amended and comprises the element of:

wherein said link identifies portions of said spool data file required to print
a first independently-formatted page of said document;
manipulating said PISF index file, after creation of said PISF index file, to
effect a document page format manipulation option, wherein said
document page format manipulation option is selected from the group
consisting of page order, page copies, page scaling and page
placement, thereby producing a manipulated PISF index file; and

using a print processor customized to use said manipulated PISF index
file, generating printer-ready data for said page from portions of said
spool data file identified by said manipulated PISF index file;

which is not disclosed in the cited combination of art. Independent claim 19, as
amended, is therefore allowable, and the rejection of this claim should be withdrawn.

The examiner has rejected claims 3 and 11 under 35 U.S.C. §103(a) as being
unpatentable over Barry et al., U.S. Patent No. 6,825,943, hereinafter “Barry,” in view of
Official Notice and further in view of the applicant’s admitted prior art in the background of the
invention, hereinafter “background.”

Claim 3 depends from independent claim 1, and claim 11 depends from
independent claim 10.

Independent claim 1 has been amended and comprises the element of:

using a print processor customized to use said manipulated PISF index
file, generating printer-ready data, for a modified output document
created via said page format manipulation, from portions of said spool
data file identified by said manipulated PISF index file;

which is not disclosed in the cited combination of art.

Barry discloses a method for splitting a print job into several portions for parallel RIP processing. Barry further discloses the use of a “control file” that contains parameters for managing the several portions for parallel RIP processes. The control file is updated to keep track of the various portions of the print job while they are being apportioned. However, Barry does not teach creation of a modified output document using an index file.

The control file of Barry performs the function of splitting a print file for multiple concurrent RIP operations. Barry does not teach the use of a control file that changes the output print format in any way. Nor does Barry teach any form of document page format manipulation. The control file of Barry effectuates no changes that effect the output format or output characteristics of the print job.

The background merely recites page formatting options provided by some printing devices. The background cited by the examiner in combination with Barry does not disclose the above-listed elements of amended claim 1. Independent claim 1, as amended, is therefore allowable in its present form, and thus claim 3 is allowable.

Independent claim 10 has been amended and comprises the element of:

wherein said PISF index file comprises a link to a spool data file, wherein said link identifies a portion of said spool data file required to print a first independently-formatted page corresponding to a page of said document, wherein said first independently-formatted page is based on document-

wide, persistent, page formatting data in said spool data file, thereby
producing a manipulated PISF index file;
which is not taught in the cited combination of art. Therefore claim 10, and claim 11 by
dependence on claim 10, are allowable in present form.

In light of the arguments above, all claims are considered to be novel, non-
obvious and patentable in view of the cited art. The applicant respectfully requests that
the examiner reconsider the rejections of these claims. The examiner is invited to contact
applicant's attorney directly for any reason.

Based on the foregoing amendments and remarks, the applicant respectfully requests
reconsideration and allowance of the present application.

Respectfully submitted,

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